

## Connecticut Acute Care Hospitals' Psychiatric Discharges and Clinic Encounters, State Fiscal Years 2000 – 2002

In its July 2001<sup>1</sup> report, OHCA made the following observations about acute care psychiatric discharges<sup>2</sup> for state fiscal years<sup>3</sup> (SFYs) 1997 through 2000:

- ◆ Discharges and patient days were increasing statewide.
- ◆ Most of the increases occurred in acute care hospitals that had ten to thirty psychiatric staffed beds.
- ◆ Although adults<sup>4</sup> were an overwhelming majority of discharges, children<sup>5</sup> accounted for the largest increases in volumes and the highest median length of stay (seven days in SFY 2000), albeit a median length of stay that dropped annually in prior years. Adolescents<sup>6</sup> had the lowest median length of stay (five days) over the four-year period.

This brief provides an update to the July 2001 report. It highlights changes that have occurred in the utilization patterns of acute care psychiatric services since SFY 2000. In the last three years, demand for acute care inpatient psychiatric services has continued to grow. Unlike prior years, hospitals that staffed between 25 and 140 beds accommodated the growth in demand. In addition, fewer children used acute care psychiatric inpatient services although they continued to stay comparatively longer than adults and adolescents and to account for one fourth of the long stays. Emergency room admissions were also on the increase.

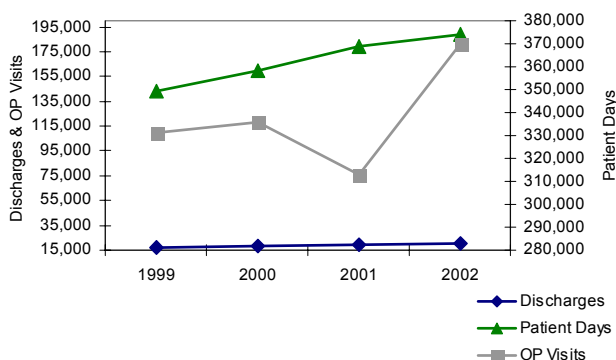
While other levels of psychiatric services were and continue to be provided by public and private facilities, this analysis is limited to inpatient acute care services both because complete data are unavailable and variations in data element definitions used by different sources. In addition, outpatient psychiatric analysis is limited because OHCA currently collects only aggregate acute care outpatient psychiatric data.<sup>7</sup>

### Demand for acute care psychiatric services continued to grow

Between SFY 2000 and SFY 2002, acute care psychiatric discharges and patient days grew by almost 20%, from

17,744 to 20,771 and 159,777 to 189,431 respectively; outpatient visits grew by 10% from 335,869 to 369,763 (Figures 1 and 2).

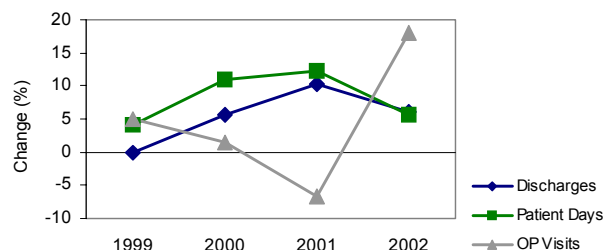
**Figure 1: Acute Care General Hospitals' Psychiatric Discharge Volumes, Patient Days and Outpatient Visits, SFYs 2000 - 2002**



Prior to SFY 2001, psychiatric discharges and patient days had been growing, while outpatient volume increased slightly and then declined. SFY 2002 was the turning point for all three patient statistics -- it marked the beginning of a decline in growth of discharges and patient days and a reversal of the decline in growth in outpatient volumes.

In FY 2001, outpatient visits shrunk by 7% (Figure 2). Twelve hospitals, mostly urban,<sup>8</sup> lost considerable outpatient psychiatric volume that year — Waterbury, Manchester and Danbury Hospitals accounted for almost three-quarters of the loss. In the prior year, St. Francis ceased reporting psychiatric outpatient visits to OHCA.<sup>9</sup>

**Figure 2: Annual Growth Rate of Psychiatric Discharge Volumes, Patient Days and Outpatient Visits, SFYs 2000-2002**



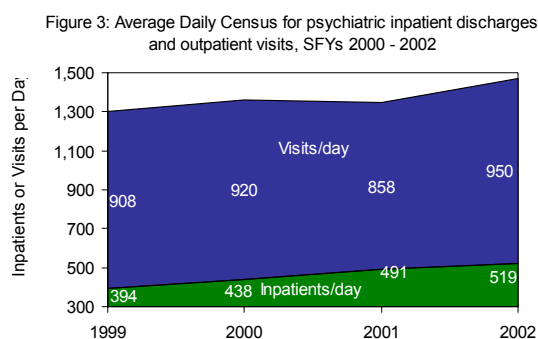
However, in SFY 2002, there was a significant increase in psychiatric visits for almost all hospitals, although some urban hospitals<sup>10</sup> continued to lose volume. One-half of the increase was from Norwalk Hospital, which tripled its psychiatric clinic volumes.<sup>11</sup> The effect was the turnaround observed in FY 2002, a peak growth rate of 18%.

Notably, the increase in outpatient psychiatric volume in FY 2002 occurred even though in the same year the volume from St. Vincent's declined by 70%.

The growth in discharges and patient days converged at 6% in SFY 2002.

### Average daily census<sup>12</sup> increased

Prior to SFY 2002, the rate of increase in psychiatric patient days exceeded increases in psychiatric discharges. The statewide median<sup>13</sup> length of stay, however, remained at six days. The average number of inpatients receiving care on a given day gradually increased from 438 in SFY 2000 to 519 in SFY 2002, an 18% increase for the period (Figure 3).



Despite the rather large dip in outpatient visits in FY 2001, average daily psychiatric visits grew from 920 in FY 2000 to 950 in FY 2002, a 3% increase.

### Large urban acute care hospitals experienced most growth

From SFY 2000 to SFY 2002, overall acute care psychiatric staffed beds increased by 3% from 693 to 714 (Appendix I). Large urban hospitals increased their beds by 8% (30 beds) but small community hospitals reduced their capacity by six beds.

Currently, two-thirds of the state's acute care inpatient psychiatric discharges are publicly funded; the other third

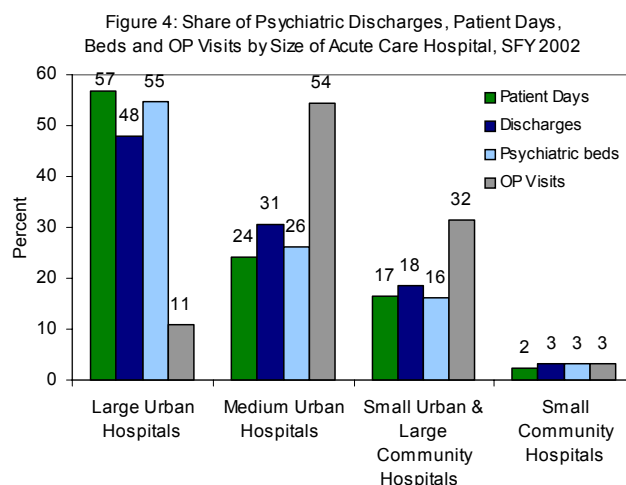
are privately insured. Until SFY 2002, Medicare was charged for over one-half of the services provided to the publicly insured while Medicaid covered the balance; in SFY 2002 Medicaid was charged 2% more than Medicare.<sup>14</sup>

State and federal governments pay for the majority of mental health services, however, their payment and reimbursement rates are generally less than the cost of care.<sup>15</sup> In the current economic environment, it is unlikely that government reimbursement rates will improve.

Despite the evidence of growing demand for psychiatric services in the state, some hospitals and community based providers of psychiatric and mental health programs decreased bed capacity while others terminated services or closed<sup>16</sup> due to low reimbursement rates.

Although there had been a net gain of 21 beds in the state, the potential for an inadequate supply of psychiatric services to adversely impact access to Connecticut psychiatric services prompted OHCA in June 2003 to issue an advisory reminding providers of a statutory requirement for facilities to notify OHCA prior to termination or significant decrease in bed capacity relating to psychiatric and substance abuse services.<sup>17</sup> Some reductions and terminations had been made without prior notification to OHCA<sup>18</sup> through the Certificate of Need (CON)<sup>19</sup> process.

As in prior years, large and medium urban general hospitals accounted for over four of every five psychiatric patient days, beds and discharges in SFY 2002 (Figure 4). However, one-half of psychiatric outpatient visits were at medium urban hospitals while three in ten were at a small urban or large community hospitals.



Due to increasing patient days, the occupancy rate<sup>20</sup> increased for all hospital types.

In SFY 2002, large urban hospitals had the highest average number of inpatients receiving psychiatric care on a given day at 295; the group's average daily bed use rate was also the highest at 76% (Table 1).

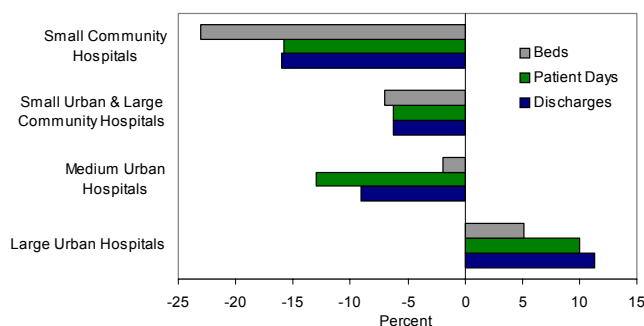
Table 1: SFYs 2000 and 2002 Daily Census and Occupancy Rates by Type of Hospital

Type of Hospital	Daily Census		Occupancy rate (%)	
	FY 2000	FY 2002	FY 2000	FY 2002
Large Urban	226	295	63	76
Medium Urban	122	126	66	67
Small Urban & Large Community	78	86	65	75
Small Community	14	13	44	56
ALL	438	61	519	73

Small community hospital psychiatric beds had the lowest average daily use rate (56%) in the state.

While the two small community hospitals (Sharon and Johnson) previously experienced the most growth in acute care psychiatric discharges and patient days, the phenomenon changed by 2002. During the three-year period, both hospitals experienced the largest decreases in their share of discharges (-16%), patient days (-16%) and beds (-23%), while large urban hospitals experienced a growth in their shares, 11%, 10%, and 5%, respectively (Figure 5).

Figure 5: Percentage Changes in Hospitals' Share of Psychiatric Discharges, Patient Days and Beds Between SFY 2000 and SFY 2002



The increases in large urban hospitals' shares were primarily due to increases in Yale New Haven hospital's discharges (11%), patient days (10%) and beds 7%.<sup>21</sup> Except for St. Raphael, which experienced a modest increase in discharges (2%) but had a 20% reduction in psychiatric patient days, both discharges and patient days declined for each of the other five hospitals in the group.

Although large urban hospitals' patient days increased, the concurrent 8% or 30-bed increase kept the mean and median lengths of stay stable at 10.8 and 7 days for the

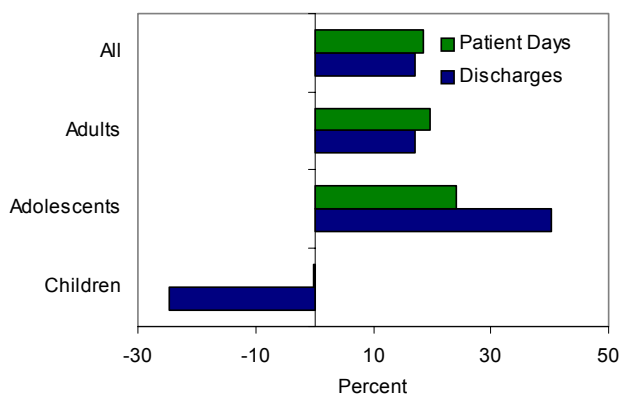
entire period. As in prior years, those lengths of stay were the highest across all groups of acute care facilities.

Community hospitals' median length of stay also increased by one day despite the 11% drop in psychiatric patient days. In addition to the relatively larger 21% reduction in beds (Appendix II), adult discharges from community hospitals increased from 89% in SFY 2000 to 95% in SFY 2002. The bed loss and adults' higher median length of stay increased the hospital's median length of stay to reflect that of its majority population.

### Fewer children utilized acute care psychiatric services, but stayed longer

In the three-year period, adolescent and adult psychiatric discharges and patient days grew, in contrast to children's (Figure 6).

Figure 6: Percentage Changes in Age Group Discharges and Total Patient Days between SFY 2000 and SFY 2002



Adults were still an overwhelming majority of psychiatric discharges (88%); adolescents were 9% and children 3%.

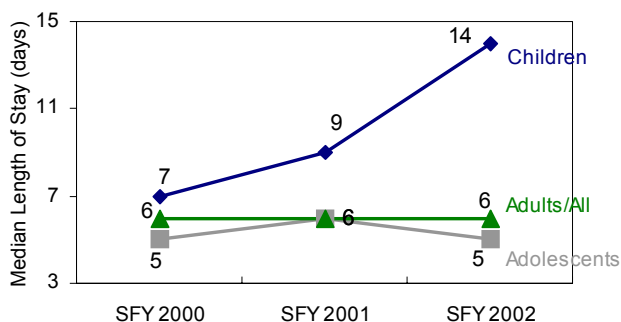
Adolescent discharges increased by 40%, expanding patient days by 25%; thus, on average, adolescent stays were shortened. The surge in adolescent discharges may be attributed to an increase in readmissions among those who were previously discharged as children.

In SFY 2000, children discharges increased by 43%, resulting in an all-time volume high of 723; one-quarter of this volume was readmissions. When the volume of children discharges dropped sharply by almost one-quarter in SFY 2002, the ratio of new admissions was almost the same, but the ratio of adolescent readmissions increased by 25% -- a clear indication that the drop in children's volume was because returning patients were older and therefore reclassified as adolescents.

By SFY 2002, children discharges had dropped by 25%, however their total patient days were unchanged, indicating that children were remaining hospitalized longer.

The reduction in median length of stay that occurred prior to SFY 2000 halted and by SFY 2002, children's median length of stay was a high of 14 days, twice that of adults and almost three times as long as adolescents (Figure 7).

Figure 7: Median Length of Stay for Acute Care Psychiatric Discharges by Age Group, SFYs 2000 - 2002



Adolescent median length of stay increased by one day in SFY 2001, but in SFY 2002, because their growth in discharges exceeded the expansion in patient days, the length of stay returned to the SFY 2000 level -- five days.

### Ratio of extremely long stays to all stays was unchanged

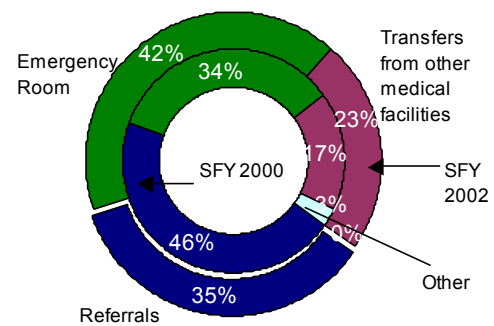
The statewide ratio of extremely long stays (or outliers<sup>22</sup>) to all stays remained at 1% (172 discharges in SFY 2002).

During the three-year period, adults accounted for one-half of outlier stays, while adolescents and children each accounted for one-quarter.

Similar to prior years, 9% of all children's stays were outliers, however adolescent's dropped from 4% to 2% and adults' declined from 1% to under 0.5%.

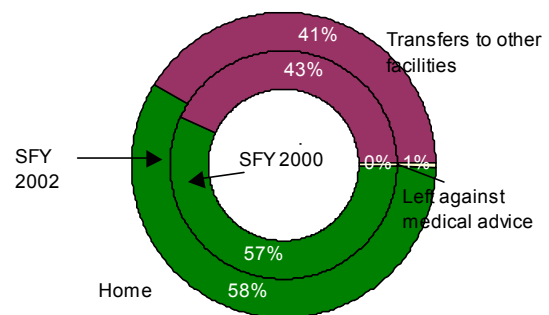
Between SFY 2000 and SFY 2002, the portion of outliers admitted through the emergency room increased from 34% to 42%, while referrals<sup>23</sup> dropped from 46% to 35%; transfers from other medical facilities<sup>24</sup> also increased (Figure 8a).

Figure 8a: Outlier Sources of Admission, SFYs 2000 and 2002



Although the distribution of outlier discharge destinations was unchanged between the two years (Figure 8b), outliers were more likely to be discharged to home or home health services than to be transferred to other medical facilities.<sup>25</sup>

Figure 8b: Outlier Discharge Destinations, SFYs 2000 and 2002



In SFY 2000, 60% of outliers admitted through referrals were discharged to home or home health services; the rest were transferred to other medical facilities. This number grew by 5% in SFY 2002.

Five of every ten outliers admitted through the emergency room were discharged to home or home health services while four were transferred to other medical facilities. By SFY 2002 an additional one in every ten were discharged to home or home health services.

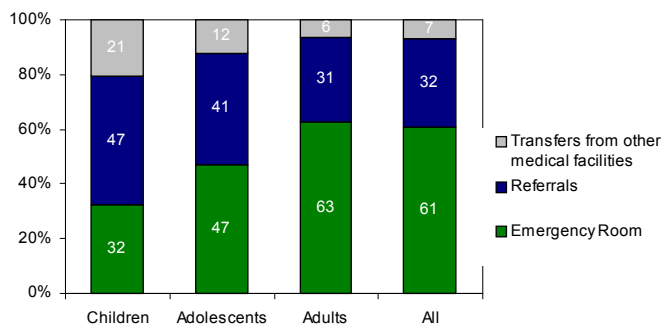
In SFY 2000, transfers were slightly more likely (54%) to be discharged to home or home health services than transferred to other medical facilities; by SFY 2002, the reverse was true.

In all three years, when outlier stays were excluded, the median length of stay for children increased more moderately than the seven to 14 days when outliers are included, from seven days in SFY 2000 to 12 days in SFY 2002; however, adult and adolescent median length of stay were unaffected.

## Emergency room admissions increased

While the emergency room was a major source of admission for outliers, non-outlier psychiatric discharges were even more likely to be admitted through that source. Non-outlier emergency room admissions increased from 54% in SFY 2000 to 61% in SFY 2002 (Figure 9).

Figure 9: Non-outlier Discharges' Admission Sources by Age Groups, SFY 2002



Adults were twice as likely as children and almost one and one-third times as likely as adolescents to be admitted through the emergency room.

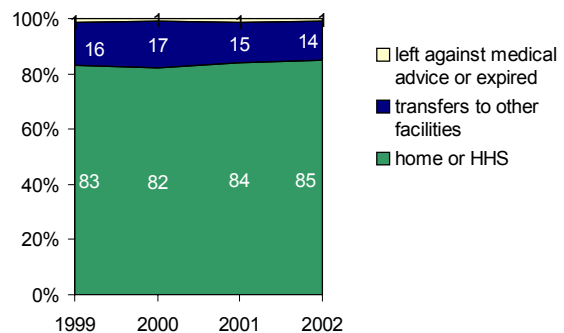
In contrast to adults, the primary source of admission for children was referrals; they were almost five of every ten admissions, although a significant number of children, three in ten, were also admitted through the emergency room.

As in SFY 2000, adolescents had an almost equal chance of being admitted through a referral or the emergency room.

## More psychiatric discharges went home

Since SFY 2000, increasing proportions of discharges (82% in 2000, 84% in 2001 and 85% in 2002) were discharged to home or home health services with corresponding decreases in transfers to other facilities (Figure 10).

Figure 10: Destinations of non-outlier Psychiatric Discharges, SFYs 2000 - 2002



The ratio of emergency room admissions discharged to home increased from four in ten discharges in SFY 2000 to five in ten discharges in SFY 2002.

In SFY 2002, all three age groups had similar discharge patterns, although in SFY 2000, children had the highest transfers to medical facilities rate (23%, but 18% at the end of the period).

## Most discharges were diagnosed with psychoses

In SFY 2002 the most common broad classification of psychiatric diagnoses for adults and adolescents continued to be psychoses; for children it was childhood mental disorders (Table 2).

Table 2: Diagnoses by Psychiatric Discharges' Ages, SFY 2002

Diagnosis Description	SFY 2002			
	Children	Adolescents	Adults	Total
Psychoses	165	1,069	15,526	16,760
Depressive Neuroses	25	247	1,023	1,295
Organic Disturbances & Mental Retardation	10	15	662	687
Neuroses Except Depressive	66	113	438	617
Acute Adjustment Reactions & Disturbances of Psychosocial Dysfunction	25	37	472	534
Childhood Mental Disorders	218	237	74	529
Disorders Of Personality & Impulse Control	25	74	170	269
O.R Procedures with Principal Diagnosis Of Mental Illness	0	1	39	40
Other Mental Disorder Diagnoses	10	3	27	40
<b>TOTAL</b>	<b>544</b>	<b>1,796</b>	<b>18,431</b>	<b>20,771</b>



## Summary

In contrast to prior observations, psychiatric discharges, days and outpatient visits continued to increase, albeit at a slower rate. Almost all the growth in demand for inpatient services was accommodated by large urban hospitals, primarily by Yale-New Haven Hospital, because the hospital acquired 66 additional beds from Yale Psychiatric Institute. Medium urban, small urban and large community hospitals provided the majority of outpatient psychiatric services. Nevertheless, all hospital categories experienced increases in their daily census and bed use rates.

Adults still comprised the bulk of acute care psychiatric discharges, and their median length of stay was stable over the period, one half that of children and one day less than adolescents.

Outlier stays during this period, relative to all stays, were the same as prior years. Although an increasing ratio was being admitted through the emergency room, a majority of those admissions were eventually discharged to home or home health services.

Statewide, the emergency room was the primary source of admission for non-outlier stays but an increasing fraction are discharged to home or home health services.

Despite the demonstrated need for psychiatric services, providers in the state have terminated, closed or reduced services without prior notification to OHCA, as legislatively mandated. In order to forestall a potential crisis in access to psychiatric care, in June 2003, the agency issued an advisory to all providers in the state; it reiterated the requirement that a provider had to prove formally to the agency, that a planned reduction or termination of a psychiatric service would not adversely affect Connecticut residents' access to care and only on the agency's approval could the provider execute its plan.

## Notes

<sup>1</sup>Acute Care Hospitals' Psychiatric Discharges in Connecticut, *State Fiscal Years 1997 – 2000*, <http://www.ohca.state.ct.us/Publications/Beh.pdf>. This was the second report. The first was to be an assessment of the effectiveness of the behavioral health system in the state, which required a system-wide data collection effort. Since there was no one agency or entity that collected behavioral health utilization data, data obtained proved to be inconsistent among facilities and not easy to analyze, the project was scaled back. The differences, which were significant, were in reporting periods, definitions of similarly named variables, levels of data, levels of acuity, ages of discharges and head counts to list a few. OHCA decided that an ongoing system-wide tracking was virtually impossible under the current fragmented system, hence the focus of subsequent reports on acute care utilization.

<sup>2</sup>Refers to discharges in the Office of Health Care Access (OHCA) inpatient discharge database assigned the ICD-9-CM Diagnoses Related Group (DRG) codes 424 – 432.

<sup>3</sup>State fiscal year (SFY) runs from July 1 of a calendar year to June 30 of the following calendar year. Although acute care hospitals report data in hospital fiscal year (FY), which runs from October 1 of a calendar year to September 30 of the subsequent year, SFY was adopted in this report to enable comparisons with data from psychiatric facilities managed or contracted by the Department of Mental Health and Addiction Services (DHMAS), the agency responsible for providing mental health treatment services for residents, the Department of Social Services (DSS), the agency that administers the state's Medicaid program which provides insurance coverage for behavioral health services, and the Department of Children and Families (DCF), the agency responsible for promoting and enhancing the provision of behavioral health services to children and other private psychiatric facilities in the state. See Appendix I for a list of inpatient facilities in the state.

<sup>4</sup>Refers to individuals 18 years and older.

<sup>5</sup>Refers to individuals less than 12 years old.

<sup>6</sup>Refers to individuals 12 to 17 years old.

<sup>7</sup>OHCA Hospital Budget System (HBS) Schedule 500. Hospitals report aggregate outpatient data by FY.

<sup>8</sup>Hospital grouping is solely for reporting purposes and was done initially in OHCA's *Annual Report on the Financial Status of Connecticut's Short-term Acute Care General Hospitals*. See Appendix II.

<sup>9</sup>St. Francis transferred its outpatient psychiatric services to its affiliate, Blue Ridge Health Services.

<sup>10</sup>Danbury, St. Vincent's, St. Mary's and Hartford accounted for 90% of the reduction. St. Vincent Hospital's volumes declined by 70% because the hospital transferred its outpatient psychiatric services to an affiliate, Hall-Brooke Foundation, Inc.

<sup>11</sup>Due to changes in Norwalk outpatient psychiatric service billing practices.

<sup>12</sup>Measures the average number of inpatients receiving care on a given day in a SFY, and is determined by dividing total patient days by 365.

<sup>13</sup>The median divides the distribution of length of stay in half and is not affected by extreme cases (or outliers) and therefore reduces the potential to over or underestimate.

<sup>14</sup>OHCA Inpatient Discharge Database.

<sup>15</sup>Center for Medicare Education: *Medicare Mental Health Coverage*. Issue Brief Vol. 4, No 3, 2003, <http://www.medicareed.org/content/CMEPubDocs/ACF525D.pdf>

<sup>16</sup>See Appendix I for acute care facilities that reduced beds. Also noted in earlier paragraphs are hospitals that have turned over their outpatient services to an affiliate. United Community and Family Services in Old Saybrook notified OHCA in September 2003 that it intends to close its outpatient mental health service center. St. Francis Hospital, Natchaug Hospital Inc. and Rushford Center are transferring ownership of their behavioral health services to Hartford Hospital. <http://www.ohca.state.ct.us/CONFiles/CONStatus/Active LOI 9-16.pdf>

<sup>17</sup>It had come to the Agency's attention through means other than a letter of intent (LOI), a Certificate of Need (CON) requirement, that providers were terminating services, closing or decreasing bed capacity.

<sup>18</sup>OHCA is the agency mandated to fulfill the purposes of Sec. 19a-638 of Chapter 368z of the Connecticut General Statutes which states that "Each health care facility or institution or state health care facility or institution which intends to terminate a health service offered by such facility or institution or decrease substantially its total bed capacity, shall submit to the office, prior to the proposed date of such termination or decrease, a request to undertake such termination or decrease."

<sup>19</sup>CON is a formal statement that a health care facility, medical equipment purchase, or new medical or expanded service is needed, or that a reduction or termination in service will not have an adverse affect on access to health care. Health care facilities may contact the OHCA Health Systems Development Unit by telephone at (860) 418-7001 for information and applications specific to an anticipated project. See <http://www.ohca.state.ct.us/applicationsforms.htm> for additional information.

<sup>20</sup>The rate measures bed usage in hospitals and is determined by dividing the average daily census by the average number of staffed beds.

<sup>21</sup>On May 12, 2000, OHCA rendered a decision that enabled Yale New Haven Hospital to acquire certain assets of and consolidate the psychiatric services of the 66-bed Yale Psychiatric Institute. CON Notice of Final Decision, Docket Number 99-550.

<sup>22</sup>Outliers are discharges with lengths of stay that are more than two standard deviations from the statewide mean length of stay (LOS). Standard deviation measures how widely LOS is dispersed around the mean LOS and is the mean of the square root of the sum of the squared differences.

<sup>23</sup>Refers to admission through a doctor, Health Management Organization (HMO) or clinic referral.

<sup>24</sup>Refers to transfers from a hospital, a skilled nursing facility (SNF), or another healthcare facility.

<sup>25</sup>Refers to transfers to a short-term hospital, skilled nursing facility (SNF), intermediate care facility (ICF) or other institutions.

## Appendix I

General Hospitals (Acute Care Facilities)*		State Facilities**	Private Facilities***
Bradley Memorial and Health Center	Middlesex Memorial	DHMAS	Hall-Brooke Behavioral Health
Bridgeport	Midstate Medical Center	Cedarcrest	Masonic Healthcare
Bristol	Milford	Connecticut Valley	Natchaug
Charlotte Hungerford	New Britain General	CT Mental Health Center	Silver Hill
CT Children's Medical Center	New Milford	Greater Bridgeport	St. Francis Care Behavioral
Danbury	Norwalk	DCF	
Day Kimball	Rockville General	Riverview	
Essent-Sharon	Saint Francis		
Greenwich	Saint Mary's		
Griffin	Saint Vincent's Medical Center		
Hartford	Stamford		
Saint Raphael	Waterbury		
John Dempsey	William W. Backus		
Johnson Memorial	Windham Community Memorial		
Lawrence and Memorial	Yale-New Haven		
Manchester Memorial			

Sources:

\*OHCA Inpatient Discharge Database

\*\*Department of Mental Health and Addiction Services (DMHAS) and Department of Children and Family Services (DCF)

\*\*\*Department of Public Health (DPH)

## Appendix II

### Types of Acute Care Facilities and Number of Psychiatric Beds, FYs 2000 and 2002

Large Urban Hospitals	# of Beds		Medium Urban Hospitals	# of Beds	
	2000	2002		2000	2002
*Bridgeport	32	30	*Danbury	20	15
CT Children's	-	-	*Lawrence & Memorial	18	18
*Hartford	139	139	*Middlesex Memorial	16	17
*John Dempsey	35	35	*New Britain General	35	35
St Francis	61	61	*Norwalk	20	19
St Raphael	25	25	*Saint Mary's	8	11
*Yale-New Haven	68	100	*Saint Vincent's	12	16
			*Stamford	25	25
			*Waterbury	30	30
	360	390		184	186

Small Urban/Large Community Hospitals	# of Beds		Small Community Hospitals	# of Beds	
	2000	2002		2000	2002
*Bristol	16	16	Bradley	-	-
*Charlotte Hungerford	15	15	*Johnson	17	11
Day Kimball	15	14	Milford	-	-
*Greenwich	-	-	*New Milford	-	-
*Griffin	16	16	Rockville General	-	-
Manchester Memorial	30	30	+Sharon	12	-
*Midstate	10	6	+Essent-Sharon	-	12
*William W. Backus	18	18			
Windham	-	-			
	120	115		29	23

**Total Number of Beds: FY 2000 = 693 FY 2002 = 714**

Sources:

OHCA Hospital Budget System Schedule 500

\*These hospitals had outpatient psychiatric clinic visits

+In FY2001 Sharon Hospital converted to a for-profit hospital and is now Essent-Sharon